

(Model.)

J. McLEAN.

WRENCH.

No. 325,001.

Patented Aug. 25, 1885.

Fig. 1.

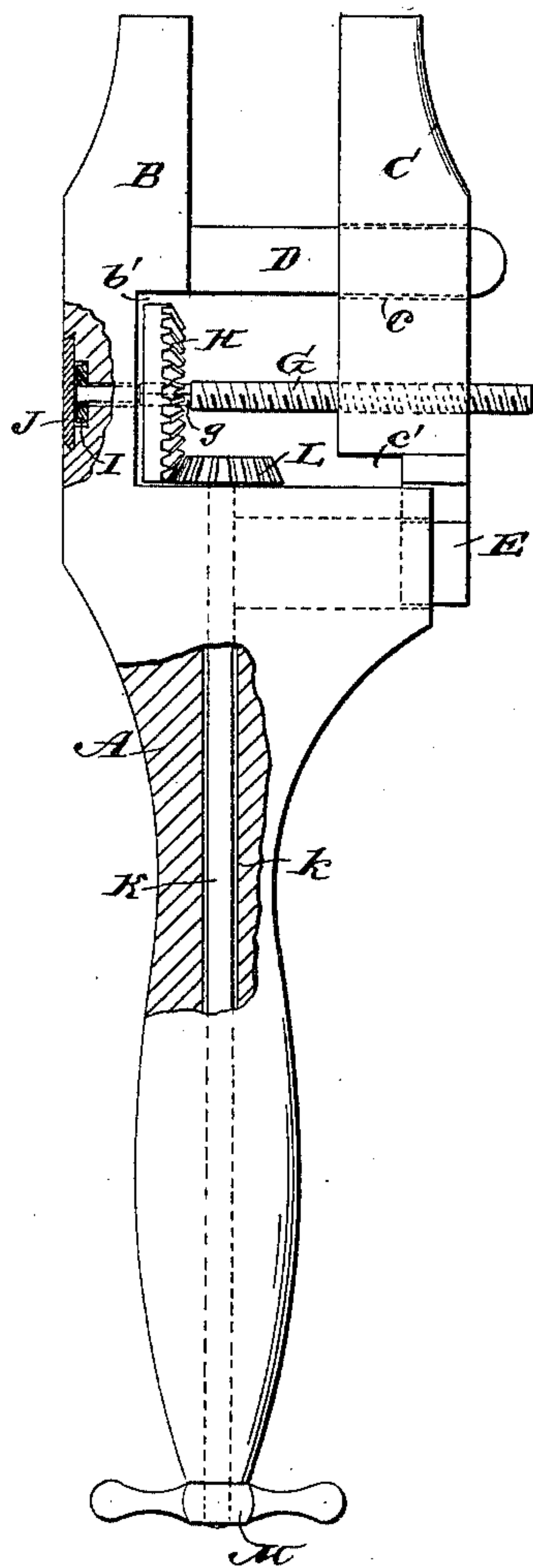
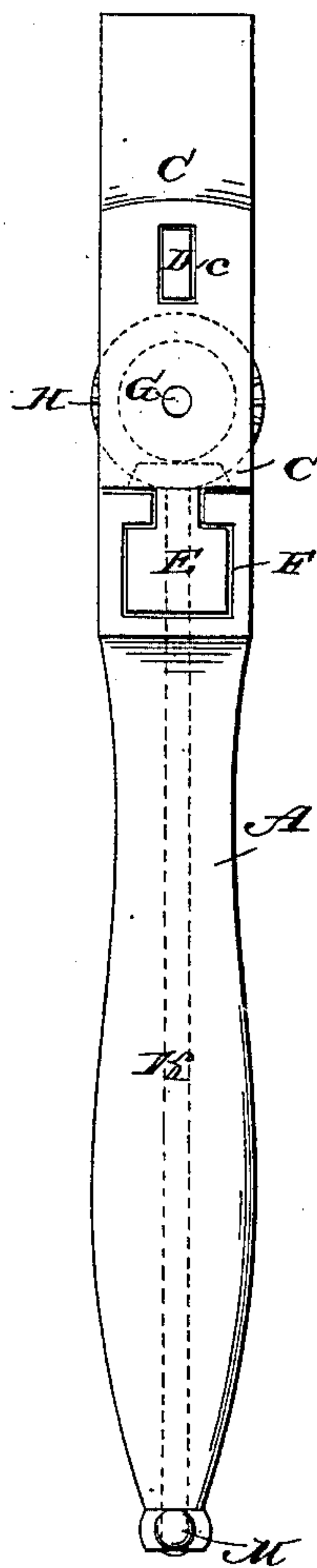


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN McLEAN, OF CAMDEN, ALABAMA.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 325,001, dated August 25, 1885.

Application filed June 6, 1885 (Model.)

To all whom it may concern:

Be it known that I, JOHN McLEAN, of Camden, in the county of Wilcox and State of Alabama, have invented a new and Improved Wrench, of which the following is a full, clear, and exact description.

My invention relates to wrenches and has for its object to render implements of this class more convenient to use in situations where little room is afforded for access to nuts, bolts, or other work requiring to be turned or held, the implement being simple, inexpensive, and durable.

The invention consists in particular constructions and combinations of parts of the wrench, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of my improved wrench with the stock or handle partly broken away and in section, and Fig. 2 is an edge view of the wrench.

The letter A indicates the stock or handle of the wrench, on which the fixed jaw B is formed, and the movable jaw C has an aperture at *c*, to receive the heavy pin or stud D, formed on or fixed to the stock, and at its lower or back end the jaw C has a \perp -shaped lug, E, which fits a recess, F, formed in the stock parallel with the pin D, so that the movable jaw will be guided on pin D and in recess F as it may be moved toward or from the fixed jaw B.

For moving the jaw C, I employ a screw, G, which is fitted to a threaded hole in the jaw, and carries on a squared or flattened portion, *g*, the bevel gear-wheel or pinion H, and the rounded end portion of the screw has a bearing in a smooth hole in the stock, and has fixed to its extremity a collar or washer, I, which enters a recess in the edge of the stock, and may, if preferred, be covered by a slide, J, fitted in a dovetailed or undercut groove formed across the face of the stock. Thus arranged, the screw G may be rotated by turning the pinion H, but cannot be moved endwise.

In a longitudinal bore, *k*, in the stock A is

fitted a shaft, K, which carries fixedly at its inner end a bevel-pinion, L, which meshes with the pinion H, and at its other end or at the heel of the stock A the shaft carries rigidly the cross-head or handle M, by which the shaft may be turned opposite ways for rotating the screw G in opposite directions to set the movable jaw C nearer to or farther from the fixed jaw B, to accommodate the size of the nut, rod, or other work on which it is desired to use the wrench.

The stock A, next the jaw B, is cut away, as at *b'*, to receive the pinion H, and the jaw C is recessed at *c'*, to give space for the pinion L when the jaw C is moved close up to or near the jaw B.

It is evident that this wrench may be used to advantage where it would be very awkward or inconvenient or impossible to use wrenches of ordinary construction—as, for instance, in turning on or off nuts in cavities or recesses of the work, the extreme ends of the jaws may be adjusted to and tightened on the nut by turning the handle M, and then by turning the wrench bodily as you would a screw-driver the nut may be moved in or out on its bolt, as required.

Another obvious advantage of the wrench is, the ease with which the jaws are set to the work by turning the handle M at the heel of the stock, which greatly enhances the value of the tool by permitting a tight hold to be taken on sunken nuts or work which it would be impossible to secure by wrenches adjustable by other means, and the wrench may also be used as a hand-vise for holding a large variety of work.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A wrench comprising a stock, a fixed jaw, B, a movable jaw, C, a screw, G, operating to shift jaw C, and carrying a bevel-pinion, H, a bevel-pinion, L, meshing with pinion H, and fixed to a shaft, K, fitted in the stock and adapted to be operated at the end or heel of the stock for shifting the movable jaw, substantially as herein shown and described.

2. The combination, in a wrench, of the stock A, provided with a fixed jaw, B, a movable jaw, C, a screw, G, for shifting the movable jaw, and

carrying a bevel-pinion, H, a bevel-pinion, L,
meshing with pinion H and fixed to a shaft,
K, fitted to the stock, and a handle, M, fixed
to shaft K at the heel of the stock, substan-
5 tially as herein set forth.

3. The combination, in a wrench, of the
stock A, provided with a fixed jaw, B, a pin or
stud, D, and a guide-slot, F, a movable jaw, C,

fitted to pin D, and by a L-head in slot F, and
a screw, G, pinions H L, shaft K, and handle 10
M, substantially as herein set forth.

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Witnesses:

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